



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/617,246

07/09/2003

Christopher K. Morzano

501284.01

2848

7590

06/14/2004

Edward W. Bulchis, Esq.  
DORSEY & WHITNEY LLP  
Suite 3400  
1420 Fifth Avenue  
Seattle, WA 98101

EXAMINER

MAI, SON LUU

ART UNIT

PAPER NUMBER

2818

DATE MAILED: 06/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

10/617,246

Applicant(s)

MORZANO ET AL.

Examiner

Son L. Mai

Art Unit

2818

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7,8,25-27,46-48,57 and 60 is/are allowed.
- 6) ☒ Claim(s) 1-6,9-24,28-45,49-56,58 and 61-63 is/are rejected.
- 7) ☒ Claim(s) 59 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 July 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Drawings***

1. The drawings are objected to because in figure 4, the reference label "OS CIRCUIT" indicating a data strobe circuit should read --DS CIRCUIT--. Corrected drawing sheets are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Specification***

2. The disclosure is objected to because of the following informalities:

On page 7, line 10, "reset the disable..." should read --reset to disable--.

On page 8, line 9, "the second and the third data bits" should read –the third and the fourth data bits--.

On page 10, lines 18 and 24, "command decoder 168" should read –command decoder 104—to agree with the drawing of figure 4.

On page 11, line 17, "control bus 236 and an address bus 238" do not match with the references in figure 5.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-6, 9-15, 16-24, 28-45, 49-56, 61-63 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 1, it appears that the Applicants intend to claim a first enable signal in active mode by reciting, "an active first enable signal" in lines 9-10. The problem with this recitation is that one can misinterpret "an active first enable signal" as another signal different from the first enable signal. The Applicants should adapt a language such as "a first enable signal being active" to avoid confusion. Similarly, the Applicants should amend "an active second enable signal", "an active write control signal" to clearly define the invention.

The similar problems exist in claims 2, 9, 10, 16, 18, 25, 28, 29, 37, 39, 49-50.

In claim 15, “the first and second data strobe signals” (lines 1-2) and “the third and fourth data strobe signals” (line 3) lack strict antecedent bases in the claim.

In claim 34, “the first and second data strobe signals” (lines 1-2) and “the third and fourth data strobe signals” (line 3) lack strict antecedent bases in the claim.

In claim 35, “the synchronous memory” (line 1) lacks strict antecedent basis.

In claim 36, “the synchronous memory” (line 1) lacks strict antecedent basis.

In claim 45, it is not clear if the Applicants intend to have the claim depending upon claims 16 and 37 because the language as written is awkward.

In claim 55, “the first and second data strobe signals” (lines 1-2) and “the third and fourth data strobe signals” (line 3) lack strict antecedent bases in the claim.

In claim 56, “the synchronous memory” (line 1) lacks strict antecedent basis.

In claim 61, “the first of a global data strobe pulse” (line 3) lacks antecedent basis. Next, “a first of the global data strobe pulse” (lines 4-5) should read --“the first of the global data strobe pulse” because the first of the global data strobe pulse has been mentioned in line 3. Further, “a first and a second data strobe pulse” (line 8) should read --the first and the second data strobe pulse—because the pulses have been mentioned in lines 4 and 6.

In claim 62, “a first and a second data strobe pulse” (lines 1-2) should read --the first and the second data strobe pulse—because the pulses have been mentioned in claim 61. And in line 6, “a second data strobe pulse” should read --the second data strobe pulse--.

In claim 63, "a first and a second data strobe pulse" (lines 1-2) should read –the first and the second data strobe pulse—because the pulses have been mentioned in claim 61. An article –the—should be added before "noise pulses" (line 2). The recitation "a first data strobe pulse" (lines 5-6) should read –the first data strobe pulse--. Similar deficiencies exist in the remaining of the claim.

Claims 2-6 are rejected for depending upon claim 1.

Claims 10-14 are rejected for depending upon claim 9.

Claims 17-24 and 45 are rejected for depending upon claim 16.

Claims 29-33 are rejected for depending upon claim 28.

Claims 38-45 and 56 are rejected for depending upon claim 37.

Claims 50-54 are rejected for depending upon claim 49.

Claims 62-63 are rejected for depending upon claim 61.

***Claim Rejections - 35 USC § 102***

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000.

Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

6. Claim 58 is rejected under 35 U.S.C. 102(e) as being anticipated by Lee et al. (U.S. Patent 6,728,162).

The Lee et al. patent shows in figure 2, generating a first data strobe pulse (DS1) responsive to a first (rising edge) of the global data strobe pulse (DS) and generating a second data strobe pulse responsive to a second (falling edge) of the global data strobe pulse (DS) only if the write command is active (case II when WR signal is active high.)

***Allowable Subject Matter***

7. Claim 59 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

8. Claims 7-8, 25-27, 46-48, 57 and 60 are allowed.

9. Claims 1-6, 9-24, 28-45, 49-56 and 61-63 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

**10.** The following is a statement of reasons for the indication of allowable subject matter: The prior art of record fails to teach or suggest at least a data strobe circuit comprising: a control circuit coupled to a first and a second logic circuit and operable to generate a first enable signal in active mode and a second enable signal in active mode

responsive to a write control signal in active mode after generating the first enable signal.

**Conclusion**

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nagata (U.S. Patent 6,229,757), Sonoda (U.S. Patent 6,407,963), Rogers (U.S. Patent 6,529,993) and Lee (U.S. Patent 6,728,162) disclose data strobe generators in SDRAM devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Son L. Mai whose telephone number is 571-272-1786. The examiner can normally be reached on 8am to 6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



06-09-04

Son L. Mai  
Primary Examiner  
Art Unit 2818